

United States Government

Department of Energy  
Bonneville Power Administration

# memorandum

DATE June 27, 2002

REPLY TO  
ATTN OF: KEP

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS  
(DOE/EIS-0285/SA-71)

TO: Don Atkinson - TFN/Snohomish  
Bill Erickson – TFP/Walla Walla

**Proposed Action:** Vegetation Management along the Rocky Reach – Maple Valley No. 1 Transmission Line ROW from structure 74/5 +838 to structure 89/2 +350. The transmission line is a 500 kV line.

**Location:** The ROW is located Kittitas County, WA. Snohomish Region.

**Proposed by:** Bonneville Power Administration (BPA).

**Description of the Proposed Action:** BPA proposes to clear targeted vegetation along access roads and around tower structures that may impede the operation and maintenance of the subject transmission line. BPA plans to conduct vegetation management along existing access road and around structure landings for the purpose of maintaining access to structures site. All work will be in accordance with the National Electrical Safety Code and BPA standards.

**Analysis:** Please see the attached checklist for the resources present. Applicable findings and mitigation measures are discussed below.

## **Planning Steps:**

### ***1. Identify facility and the vegetation management need.***

Access roads and Tower sites will be treated using selective and non-selective methods that include, hand cutting, mowing, and herbicide spot, localized and broadcast applications including cut stubble and localized granular treatments. US Forest Service lands and Critical habitat area (Spotted owl) will be treated using hand cutting and mowing methods.

The approximate acres of Right-of-way roads is 50 acres. The landowners are currently managing a large percentage of the roads so the actual need for road treatment should be less than the total acres. The Inspector will make the actual determination for road treatment by flagging or staking of those roads during the time of contract implementation. The Contractor will provide vegetation management on roads where the vegetation is encroaching on the access road.

### ***2. Identify surrounding land use and landowners/managers and any mitigation.***

The subject corridor traverses industrial USFS forested, state and privately owned land. All landowners will be notified of the upcoming project by letters, personal contact and door hangers.

### ***3. Identify natural resources and any mitigation.***

A review of BPA database indicates suitable Spotted Owl habitat is located both within BPA right-of-way and west of the transmission line in miles 85/2 to 87/5. BPA will follow the sensitive habitat mitigation measures outlined in the Vegetation FEIS and the concurrence of the Fish and Wildlife Service producing a “no effect” on the Spotted Owl habitat. The following are the mitigation measures:

Suspend vegetation management activities within 0.4 km (0.25 mi.) of spotted owl critical habitat between March 1 and June 30.

Examine any large danger trees (11” diameter at breast height) that need to be removed in spotted-owl habitat for evidence of owls. If a tree has evidence of owl nesting activity, conduct formal consultation with the USFWS.

*In case of an emergency danger tree removal—a tree suddenly becoming an imminent threat to the line, posing a danger to life and property—immediately examine the felled tree for evidence of owl nesting. If such evidence is found, start emergency consultation with the USFWS, or, if the situation occurs during off-duty hours, conduct after-the-fact emergency consultation the next business day.*

For mitigation measures for the identified natural resources, e.g. riparian areas, streams/T&E streams and wetlands and water supply systems see attached checklist section 3.1.

No ‘in stream’ work is to take place without prior consultation with the appropriate government agencies and permits are in place.

Do not use ground disturbing mechanical equipment to clear on slopes over 20%. Steep slopes are susceptible increased runoff and elevated erosion when combined with the removal of vegetation and protective soil organic layers.

**4. *Determine vegetation control and debris disposal methods.***

Debris will be disposed by: Lop and Scatter - (Branches of a fallen tree are cut off (lopped) by ax or chainsaw, so the tree trunk lies flat on the ground. The trunks are occasionally cut in 1-to-2-m (4-to-8-ft.) lengths. The cut branches and trunks are then scattered on the ground, laid flat, and left to decompose.

**5. *Determine re-vegetation methods, if necessary.***

Reseeding /replanting regimes have not been planned at this time. Low growing aggressive native vegetation within the Right Of Way can naturally dominate with the elimination of tall growing vegetation

**6. *Determine monitoring needs.***

Site will be inspected during treatment. In addition routine patrols by BPA ground and aerial patrols

**7. *Prepare appropriate environmental documentation.***

**Findings:** This Supplement Analysis finds that 1) the proposed actions are substantially consistent with the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285) and ROD, and; 2) there are no new circumstances or information relevant to environmental concerns and bearing on the proposed actions or their impacts. Therefore, no further NEPA documentation is required.

/s/ John Howington

John Howington  
Physical Scientist

CONCUR /s/ Thomas C. McKinney

Thomas C. McKinney  
NEPA Compliance Officer

DATE: 07/02/2002

#### Attachments

cc:

L. Croff – KEC-4

T. McKinney - -KEC-4

P. Key – LC-7

J. Meyer – KEP-4

M. Hermeston – KEP-4

J. Sharpe – KEPR-4

M. Martin – KEPR-Covington

M. Johnson – TF/DOB-1

S. Davis – TFN/Snohomish

L. Alvarez – TFN/Snohomish

C. Pursiful – TFNK/Covington

Environmental File – KEC

Official File – KEP-4 (EQ-14)

# Vegetation Management Checklist

# 1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

## 1.1 Describe Right-of-way. Rocky Reach-Maple Valley 74/5+838 to 89/2+350 Access Road Vegetation Management

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Rocky Reach-Maple Valley	14 miles	150	50 acres potential Access Roads

See Handbook — List of Right-of-way Components for checkboxes and the requirements for the components Rights-of-way, Access Roads, Switch Platforms, Danger Trees, and Microwave Beam paths.

Access roads and Tower sites will be treated using selective and non-selective methods that include, hand cutting, mowing, and herbicide spot, localized and broadcast applications including cut stubble and localized granular treatments. US Forest Service lands and Critical habitat area (Marbled Murrelet and Spotted owl) will be treated using hand cutting and mowing methods.

The approximate acres of Right-of-way roads is 50 acres. The landowners are currently managing a large percentage of the roads so the actual need for road treatment should be less than the total acres. The Inspector will make the actual determination for road treatment by flagging or staking of those roads during the time of contract implementation. The Contractor will provide vegetation management on roads where the vegetation is encroaching on the access road. Payment will be based the total acres treated determined by the length of treatment area, times 25 feet wide, divided by 43,560.

### Right Of Way:

Transmission Structures – clearing around

Access Road clearing - approximate miles – up to 50 miles

Tower Clearing

Control all tree and brush species within about 30 ft. of transmission structures. Cut stumps are not to be taller than 2 – 4 in.

Pull all debris and slash out of the 30-ft. area around transmission structures.

### Access roads Requirements

Control all vegetation except grasses, to enable safe driving.

The access road is to be 14 to 25 ft. wide with a 15-ft.- high clearance. Limbs should not hang down into the access road.

Cut stumps are not to be taller than 2 – 4 in. in the roadbed.

Cut stumps horizontal to the ground to prevent personal injuries and tire puncture.

Trim limbs back as flush to the trunk as possible when trees are rooted outside of the access road.

Pull all debris back from the access road as prescribed.

## 1.2 Describe the vegetation needing management.

See handbook — List of Vegetation Types, Density, Noxious Weeds for checkboxes and requirements.

Vegetation Types:

Douglas Fir

True Fir

Alder

Maple

Poplar

High (250 + stems/per acre)

## 1.3 List measures you will take to help promote low-growing plant communities. If promoting low-growing plants is not appropriate for this project, explain why.

See Handbook — for requirements and checkboxes.

Not Promoting Low Growing Plant Communities Describe Why? Project only entail the clearing of roads and Tower site to facilitate maintenance

## 1.4 Describe overall management scheme/schedule.

See Handbook - Overall Management Scheme/Schedule.

**Description of the Proposed Action:** BPA proposes to clear unwanted vegetation in the access roads and around tower structures that may impede the operation and maintenance of the subject transmission line. All work will be in accordance with the National Electrical Safety Code and BPA standards. BPA plans to conduct vegetation control with the goal of removing growing vegetation that is currently encumbering access to the transmission line.

The work will provide system reliability.

### Initial entry –

Using hand cutting or mechanical means, BPA will complete brush management on the access roads and towers. Vegetation is currently encumbering the access roads and towers of the power lines; treat the associated stumps and stubble with herbicides (spot, localized, and broadcast treatments) to ensure that the roots are killed preventing new sprouts and selectively eliminating vegetation that prevents access to the power lines on authorized areas only. Areas may be replanted or reseeded with low-growing grasses if there is limited vegetation to re-establish the site.

Keeping trucks and equipment on designated access roads will not disturb desirable low-growing plants on the ROW. All work will take place in existing access roads or ROW.

Slash and debris will be pulled at least 10 feet from the road surface and loped and scattered, or it will be mulched mechanically

### Subsequent entry

The vegetation management program will be designed to provide a 3-8 year maintenance free interval. The overall vegetation management scheme will be to initially clear and remove all encumbering vegetation using a combination of manual, mechanical, and herbicide treatments as outlined in the initial treatment

**Future cycles -**

Future cycles of work will involve cut stump, basal treatments, or tree cutting. During routine patrols, the ROW will be examined for edge, tall growing trees, and danger trees with appropriate actions taken.

**2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS**

**2.1 List the types of landowners and land uses along your corridor.**

See Handbook — Landowners/Managers/Uses for requirements, and List of Landowners/Managers/Uses for a checkbox list.

Residential

- Industrial Forest lands

US Forest Service Lands.

Cle Elm Ranger District

Floyd Regalski 509-674-4411

**Describe method for notifying right-of-way landowners and requesting information (i.e., door-hanger, letter, phone call, e-mail, and/or meeting). Develop landowner mail list, if appropriate.**

See Handbook — Methods for Notification and Requesting Information for requirements.

The Contractor or BPA inspector will contact landowners before work begins.

In addition, homes within 200 feet of the ROW will be contacted 2 days prior to treatments.

**2.3 List the specific land owner/landuse measures — determined from the handbook or through your consultations with the entities — that will be applied.**

See handbook — Requirements and Guidance for Various Landowners/Uses for requirements and guidance, also Residential/Commercial, Agricultural, Tribal Reservations, FS-managed lands, BLM –managed lands, Other federal lands, State/ Local Lands.

When facilities that cross state or local agency lands, notify, and cooperate with those entities) prior to vegetation control activities, as appropriate.

Treatment Details	74/5+838		On ROW Access	Off ROW Access
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TWR	to	TWR	Owner	Constraint	length	width	Ac	length	width	Ac
74/5+838		75/1	USFS	STEEP	0	25	0.0	0	25	0.0
75/1		75/1+650	USFS	NONE	700	25	0.4	1200	25	0.7
76/1+634		76/4	USFS	NONE	100	25	0.1	2200	25	1.3
76/4		76/5	USFS	CREEK	100	25	0.1	600	25	0.3
76/5		76/6	USFS	CREEK	0	25	0.0	0	25	0.0
76/6		76/6+1609	USFS	CREEK	1500	25	0.9	2700	25	1.5
78/1+1410		78/2	USFS	STEEP	400	25	0.2	0	25	0.0
78/2		78/3	USFS	CREEK	1350	25	0.8	1200	25	0.7
78/3		78/3+250	USFS	NONE	275	25	0.2		25	0.0
79/5+1275		79/5+1614	USFS	NONE	200	25	0.1	4055	25	2.3
81/1+657		81/2+600	USFS	NONE	600	25	0.3	0	25	0.0
81/4+1554		82/2+141	USFS	STEEP	100	25	0.1	3100	25	1.8
83/1+748		83/2+30	USFS	NONE	150	25	0.1	1200	25	0.7
84/2+1930		84/4	USFS	NONE	1100	25	0.6	0	25	0.0
84/4		84/5	USFS	CREEK	100	25	0.1	7450	25	4.3
84/5		85/2	USFS	NONE	1100	25	0.6	0	25	0.0
85/2		85/3	USFS	CREEK	0	25	0.0	0	25	0.0
85/3		85/3+285	USFS	T&E	350	25	0.2	0	25	0.0
85/3+905		85/5	USFS	NONE	500	25	0.3	0	25	0.0
85/5		86/1	USFS	CREEK		25	0.0		25	0.0
86/1		86/1+1629	USFS	NONE	500	25	0.3	3205	25	1.8
87/3+325		87/4	USFS	CREEK	900	25	0.5	7345	25	4.2
87/4		87/5+13	USFS	STEEP	100	25	0.1		25	0.0
88/5+312		88/6+34	USFS	NONE	1500	25	0.9	9450	25	5.4
							23.4			30.3

**2.4 Review any existing landowner agreements (e.g. tree/brush Permits or Agreements). List in table above any provisions that need to be followed and where they are located.**

See handbook — Landowner Agreements for requirements.

The following landowners have responsibility for vegetation maintenance.

None Known

**2.5 List any known casual informal use of the right-of-way by non-owner publics. List any constraints or measure's to take due to the informal use.**

See handbook — Casual Informal Use of Right-of-way for requirements.

Hiking, Ski Area.

**2.6 List other potentially affected people, agencies, or tribes (that are not landowners/managers) that need to be notified or coordinated with. Describe method of notification and coordination.**

See handbook — Other Potentially Affected Publics for requirements and suggestions.

No Tribal land involved

### 3. IDENTIFY NATURAL RESOURCES

See Handbook — Natural Resources

#### 3.1 List any water resources (streams, rivers, lakes, wetlands) that may be impacted by vegetation control activities. For each water body describe the control methods and requirements or mitigation measures that will be used.

See Handbook — Water Resources for requirements for working near water resources including buffer zones.

Treatment Details		74/5+838		On ROW Access			Off ROW Access			
TWR	to TWR	Owner	Constraint	length	width	Ac	length	width	Ac	Prescrip
75/3	75/4	PVT	WETLANDS	1350	25	0.8	1200	25	0.7	
76/4	76/5	USFS	CREEK	100	25	0.1	600	25	0.3	
76/5	76/6	USFS	CREEK	0	25	0.0	0	25	0.0	
76/6	76/6+1609	USFS	CREEK	1500	25	0.9	2700	25	1.5	
76/6+1609	77/2	PVT	CREEK	900	25	0.5	0	25	0.0	
77/2	77/3	PVT	CREEK	1200	25	0.7	300	25	0.2	
78/2	78/3	USFS	CREEK	1350	25	0.8	1200	25	0.7	
79/3	79/4	PVT	WETLANDS	400	25	0.2	1400	25	0.8	
79/4	79/5	PVT	CREEK	800	25	0.5	1400	25	0.8	
79/5	79/5+1275	PVT	WETLANDS	250	25	0.1	900	25	0.5	
80/1	80/2	PVT	T&E	0	25	0.0	0	25	0.0	Yakima River
81/1	81/1+657	PVT	CREEK	0	25	0.0	0	25	0.0	
82/2+141	82/5	PVT	CREEK	1400	25	0.8	2900	25	1.7	
82/5	83/1	PVT	CREEK	1000	25	0.6	4230	25	2.4	Meadow Ck
83/2+30	83/4	PVT	WETLANDS	1650	25	0.9	575	25	0.3	
83/4	84/1	PVT	WETLANDS		25	0.0		25	0.0	
84/2	84/2+1930	PVT	CREEK	2000	25	1.1	1000	25	0.6	Roaring Ck
84/4	84/5	USFS	CREEK	100	25	0.1	7450	25	4.3	
85/2	85/3	USFS	CREEK	0	25	0.0	0	25	0.0	
85/3	85/3+285	USFS	T&E	350	25	0.2	0	25	0.0	
85/3+282	85/3+905	PVT	CREEK	900	25	0.5	4005	25	2.3	
85/5	86/1	USFS	CREEK		25	0.0		25	0.0	
86/1+1629	87/1	PVT	CREEK	1000	25	0.6	6220	25	3.6	
87/1	87/3+325	PVT	CREEK	800	25	0.5		25	0.0	
87/3+325	87/4	USFS	CREEK	900	25	0.5	7345	25	4.2	Mill Cr
88/2	88/3	PVT	CREEK		25	0.0	2835	25	1.6	Cold Cr.
88/3	88/4	PVT	CREEK	1200	25	0.7	5600	25	3.2	
						26.4			43.0	

#### Streams and Wetlands PVT and State Lands

State Forest or private lands, within 30.5 m (100 ft.) of a stream and wetland areas.

Available: all manual and biological treatments

**Manual:** Hand tools and chainsaws

**Mechanical:** None, within 50 feet of streams or wetlands. Only on Access Roads and Tower sites. No ground disturbing activities that will cause bare soil or erosion within 100 feet from the stream.

**Herbicide:** Use appropriate buffers as described in the buffer table.

Suggested herbicides: Glyphosate (such as Rodeo®), Garlon 3A, dicamba (Trooper/Vanquish), Escort, clopyralid, picloram, and 2-4-d using wick and spot-foliar treatments (localized) and ground broadcast treatments with handgun only. Garlon 4 can be use when using appropriate buffers. Use only Herbicides labeled for wetland areas when treating wetlands. Do not use picloram in sensitive area or in wetlands. At no time will there be applications to standing or open water.

### **Salmon T&E Streams PVT and State lands**

State and/or Private lands within 122 m (400 ft.) of a listed stream. Available: manual, mechanical, spot and localized herbicide, and ground broadcast treatments. No mechanical (machines) within 100 feet of streams except for tower sites and access roads.

**Manual:** Hand tools and chainsaws

**Mechanical:** None within 100 feet of stream. Except for Access Roads and Tower sites. No ground disturbing activities that will cause bare soil or erosion within 400 feet from the stream.

**Herbicide:** Use appropriate buffers as described in the buffer table.

Suggested herbicides: Glyphosate (such as Rodeo®), Garlon 3A, dicamba (Trooper/Vanquish), Escort, clopyralid, picloram, and 2-4-d using wick and spot-foliar treatments (localized) and ground broadcast treatments with handgun only. Garlon 4 can be use when using appropriate buffers. At no time will there be applications to standing or open water.

### **Streams and Wetlands USFS Lands/M. Murrelet**

US Forest lands, within 30.5 m (100 ft.) of a stream and wetland areas.

Available: all manual and biological treatments

**Manual:** Hand tools and chainsaws

**Mechanical:** None, within 50 feet of streams or wetlands. Only on Access Roads and Tower sites. No ground disturbing activities that will cause bare soil or erosion within 100 feet from the stream.

**Herbicide:** NONE.

## Salmon T&E Streams USFS lands/M. Murrelet

US Forest lands within 122 m (400 ft.) of a listed stream. Available: manual, mechanical, spot and localized herbicide, and ground broadcast treatments. No mechanical (machines) within 100 feet of streams except for tower sites and access roads.

**Manual:** Hand tools and chainsaws

**Mechanical:** None within 100 feet of stream. Except for Access Roads and Tower sites. No ground disturbing activities that will cause bare soil or erosion within 400 feet from the stream.

**Herbicide:** NONE

### BPA BUFFER Herbicide

HERBICIDE	Ground water Advisory	Surface Water Advisory	Highest Aquatic Toxicity Invertebrates/Vertebrates	Spot treat	Localized	Ground Broadcast
Transline Clopyralid	x		Practically Non Toxic	25 ft	35 ft	100 ft
2,4-d Dimethyl amine Salt	x		Practically Non Toxic	25 ft	35 ft	100 ft
Glypro/ Accord Glyphosate			Practically Non Toxic	Up to edge	Up to edge	35 ft
2,4-d Dodecyl/amine salt	x		Slightly toxic	25 ft	35 ft	100 ft
Tordon 22K picloram	x	x	Moderately Toxic	25 ft	35 ft	100 ft
Vanquish dicamba	x	x	Slightly Toxic	25 ft	35 ft	100 ft
Escort			Practically Non Toxic	Up to edge	Up to edge	35 ft
Garlon 3A			Practically Non Toxic	Up to edge	Up to edge	35 ft
Garlon 4*			Highly Toxic	35 ft	100 ft	400 ft

**3.2 If planning to use herbicides, list locations of any known irrigation source, wells, or springs (landowners maybe able to provide this info if requested).**

See Handbook — Herbicide Use Near Irrigation, Wells or Springs for buffers and herbicide restrictions.

**ROARING CREEK DEVELOPMENT**

**Larry Blum 10207 Kopachuck DR NW Gig Harbor 98335 1-206-265-2290**

**Table III-2: Herbicide-free Zones for Rights-of-way, Electric Yards, and Non-electric Facilities**

<b>Zone</b>	<b>Buffer Width</b>
<b>Agricultural Irrigation Source of Any Kind (Wet or Dry)</b>	15m (50 ft.) from each bank (linear) or well (radius) for any herbicide.
<b>Domestic/Public Drinking Water Well</b>	50m (164 ft.) radius for any herbicide having a ground/surface water advisory* 15m (50 ft.) radius for any other herbicide
<b>Domestic/Public Drinking Water Intakes/Spring Developments</b>	For slopes <10% 50-m (164- ft.) radius for any herbicide having a ground/surface water advisory* 15-m (50-ft.) radius for any other herbicide For Slopes >10% <30% 150-m (492-ft.) radius for any herbicide having a ground/surface water advisory* 50-m (164-ft.) radius for any other herbicide For slopes >30% 300-m (984-ft.) radius for any herbicide having a ground/surface water advisory* 100-m (328-ft.) radius for any other herbicide
<b>Sole Source Aquifers</b>	As per local aquifer management plan.

\*As stated on the label

The buffers in this table are to be used unless other agencies, local authorities, or T&E consultations require more strict buffers. In cases of more strict local buffers, those would apply. See table 7a for general aquatic toxicities of and label advisories of the active ingredients.

**3.2 If planning to use herbicides, list locations of any known irrigation source, wells, or springs (landowners maybe able to provide this info if requested).**

See Handbook — Herbicide Use Near Irrigation, Wells or Springs for buffers and herbicide restrictions.

None Known

**NON-HERBICIDE AREAS**

Water sources and wells, parks, and other sensitive lands within 100 feet of Very sensitive Riparian areas or water sources. Hand Cutting Methods only, no Herbicides allowed.

**WELLS:** No herbicides allowed within 100 feet of wellhead. Use only herbicides that do not have ground or surface water advisories between 100 and 165 feet of wellhead. Approved herbicides include: glyphosate, Imazapyr, triclopyr, Escort.

**3.3 List below the areas that have Threatened or Endangered Plant or Animal Species and the name of the species, and any special measures that need to be taken due to their presence. Attach any BAs, T&E maps, or letters from US Fish and Wildlife.**

Rocky Reach Maple Valley #1 Road Project											
Treatment Details			74/5+838		On ROW Access			Off ROW Access			
TWR	to	TWR	Owner	Constraint	length	width	Ac	length	width	Ac	
85/3		85/3+285	USFS	T&E	350	25	0.2	0	25	0.0	S. OWL
85/3+282		85/3+905	PVT	CREEK	900	25	0.5	4005	25	2.3	S. OWL
85/3+905		85/5	USFS	NONE	500	25	0.3	0	25	0.0	S. OWL
85/5		86/1	USFS	CREEK		25	0.0		25	0.0	S. OWL
86/1		86/1+1629	USFS	NONE	500	25	0.3	3205	25	1.8	S. OWL
86/1+1629		87/1	PVT	CREEK	1000	25	0.6	6220	25	3.6	S. OWL
87/1		87/3+325	PVT	NONE	800	25	0.5		25	0.0	S. OWL
87/3+325		87/4	USFS	CREEK	900	25	0.5	7345	25	4.2	S. OWL
87/4		87/5+13	USFS	STEEP	100	25	0.1		25	0.0	S. OWL

Span		T&E Species	Method/mitigation or avoidance measures
To	From		
85/2	87/5 +13	Spotted owl	<p>Where opportunity exists, suspend vegetation management activities within 0.4 km (0.25 mi.) of spotted owl critical habitat between March 1 and June 30, unless the owls are shown not to be nesting. For Future entries,</p> <p>Examine any large danger trees (11” diameter at breast height) that need to be removed in spotted-owl habitat for evidence of owls. If a tree has evidence of owl nesting activity, conduct formal consultation with the USFWS.</p> <p>In case of an emergency danger tree removal—a tree suddenly becoming an imminent threat to the line, posing a danger to life and property—immediately examine the felled tree for evidence of owl nesting. If such evidence is found, start emergency consultation with the USFWS, or, if the situation occurs during off-duty hours, conduct after-the-fact emergency consultation the next business day.</p>

See Handbook — T&E Plant or Animal Species for requirements and determining presence.

**3.4 List any other measures to be taken for enhancing wildlife habitat or protecting species.**

See Handbook — Protecting Other Species for requirements.

See above

**3.5 List any visually sensitive areas and the measures to be taken at these areas.**

See Handbook — Visual Sensitive Areas for requirements.

N/A

**3.6 List areas with cultural resources and the measures to be taken in those areas.**

See Handbook – Cultural Resources for requirements.

Soil disturbance will be minimal (less than 6 inches) and confined to access roads and tower Sites

### 3.7 List areas with steep slopes or potential erosion areas and the measure and methods to be applied in those areas.

See Handbook – Steep/Unstable Slopes for requirements.

Treatment Details			74/5+838		On ROW Access			Off ROW Access		
TWR	to	TWR	Owner	Constraint	length	width	Ac	length	width	Ac
74/5+838		75/1	USFS	STEEP	0	25	0.0	0	25	0.0
78/1+1410		78/2	USFS	STEEP	400	25	0.2	0	25	0.0
80/3		81/1	PVT	STEEP	700	25	0.4	3500	25	2.0
81/4+1554		82/2+141	USFS	STEEP	100	25	0.1	3100	25	1.8
87/4		87/5+13	USFS	STEEP	100	25	0.1		25	0.0
87/5+13		88/1	PVT	STEEP		25	0.0	1635	25	0.9
88/1		88/2	PVT	STEEP	700	25	0.4		25	0.0
89/1+34		89/2	PVT	STEEP	700	25	0.4		25	0.0
							2.8			6.4

#### STEEP SLOPES PVT AND STATE LANDS

**Manual:** Hand tools and chainsaws

**Mechanical:** Can be used on roads and towers, No Ground disturbing activities on steep slopes

HERBICIDE: GLYPHOSATE, PICLORAM, IMAZAPYR, 2,4-D, TRICLOPYR (GARLON 3A AND GARLON 4), DICAMBA MAY BE PRESCRIBED FOR CUT-STUMP, STEM-INJECTION, AND BASAL-STEM TREATMENTS, AS WELL AS FOR SPOT-FOLIAR, CUT STUBBLE, AND GROUND BROADCAST-FOLIAR TREATMENTS. IN ADDITION, ESCORT AND CLOPYRALID CAN BE USED FOR SPOT FOLIAR AND BROADCAST

#### TREATMENTS. STEEP SLOPES USFS LANDS AND M. MURRELT

**Manual:** Hand tools and chainsaws

**Mechanical:** Can be used on roads and towers, No Ground disturbing activities on steep slopes

**Herbicide:** NONE

### 3.8 List areas of spanned canyons and the type of cutting needed.

See Handbook – Spanned Canyons for requirements.

N/A

## 4. DETERMINE VEGETATION CONTROL METHODS

See Handbook — Methods

#### 4.1 List Methods that will be used in areas not previously addressed in steps above.

See Handbook — Manual, Mechanical, Biological, Herbicides for requirements for each of the methods.

Treatment Details			74/5+838		On ROW Access			Off ROW Access		
TWR	to	TWR	Owner	Constraint	length	width	Ac	length	width	Ac
75/1		75/1+650	USFS	NONE	700	25	0.4	1200	25	0.7
75/1+650		75/3	PVT	NONE	1700	25	1.0	2200	25	1.3
75/4		76/1+634	PVT	NONE	1500	25	0.9	600	25	0.3
76/1+634		76/4	USFS	NONE	100	25	0.1	2200	25	1.3
77/3		78/1+1410	PVT	NONE	1000	25	0.6	1100	25	0.6
78/3		78/3+250	USFS	NONE	275	25	0.2		25	0.0
78/3+250		79/1	PVT	NONE	600	25	0.3	2500	25	1.4
79/1		79/3	PVT	NONE	400	25	0.2	1500	25	0.9
79/5+1275		79/5+1614	USFS	NONE	200	25	0.1	4055	25	2.3
79/5+1614		80/1	PVT	NONE	300	25	0.2	300	25	0.2
80/2		80/3	PVT	NONE	1000	25	0.6	2000	25	1.1
81/1+657		81/2+600	USFS	NONE	600	25	0.3	0	25	0.0
81/2+600		81/4+1554	PVT	NONE	1400	25	0.8	1500	25	0.9
83/1		83/1+748	PVT	NONE	800	25	0.5	0	25	0.0
83/1+748		83/2+30	USFS	NONE	150	25	0.1	1200	25	0.7
84/1		84/2	PVT	NONE	800	25	0.5	400	25	0.2
84/2+1930		84/4	USFS	NONE	1100	25	0.6	0	25	0.0
84/5		85/2	USFS	NONE	1100	25	0.6	0	25	0.0
88/4		88/5+312	PVT	NONE	800	25	0.5		25	0.0
88/5+312		88/6+34	USFS	NONE	1500	25	0.9	9450	25	5.4

#### NO ENVIRONMENTAL CONSTRAINTS STATE AND PVT LANDS

State Forest or private lands with no environmental constraints. Available: all manual, mechanical, biological, and herbicidal treatments

**Manual:** Hand tools and chainsaws

**Mechanical:** Can be used on roads and towers, all areas suitable for mechanical treatment. No Ground disturbing activities on slopes over 20%

**Herbicide:** Glyphosate, Picloram, Imazapyr, picloram, 2,4-d, Triclopyr (Garlon 3A and Garlon 4), Dicamba may be prescribed for cut-stump, stem-injection, and basal-stem treatments, as well as for spot-foliar, cut stubble, and broadcast-foliar treatments. In addition, Escort and clopyralid can be used for spot foliar and broadcast treatments.

#### NO ENVIRONMENTAL CONSTRAINTS USFS LANDS

US Forest lands with no environmental constraints. Available: all manual, mechanical, biological, and herbicidal treatments

**Manual:** Hand tools and chainsaws

**Mechanical:** Can be used on roads and towers, all areas suitable for mechanical treatment. No Ground disturbing activities on slopes over 20%

**Herbicide:** NONE.

## 5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION

### 5.1 Describe the debris disposal methods to be used and any special considerations.

See Handbook — Debris disposal for a checkbox list and requirements.

Chip (Mechanical brush disposal unit cuts brush into chips 4 in. or less in diameter, and spread over ROW, piled on ROW, or trucked off site. Trunks too large for the chipper are limbed and the limbs chipped. Trunks are placed in rows along the edge of the right-of-way or scattered, as the situation requires.)

- Lop and Scatter (Branches of a fallen tree are cut off (lopped) by ax or chainsaw, so the tree trunk lies flat on the ground. The trunks are occasionally cut in 1-to-2-m (4-to-8-ft.) lengths. The cut branches and trunks are then scattered on the ground, laid flat, and left to decompose.)
- Mulch (Mulching is a debris treatment that falls between chipping and lop-and-scatter. The debris is cut into 1-to-2-ft. lengths, scattered on the right-of-way and left to decompose. This method is used when terrain and conditions do not allow the use of mechanical chipping equipment.)
- Other – Pull debris back 10 feet from road surface

### 5.2 List areas of reseeding or replanting (those areas not already described in steps 1, 2, or 3).

See Handbook — Reseeding/replanting for requirements.

**If Re-Seeding is needed Mixtures of the following grasses would be beneficial**

#### Native

California Brome (Bromus carinatus)	y
Sheep fescue (Festuca ovina)	y
Blue wildrye (Elymus glaucus)	y
Canada bluegrass (Poa compressa)	y
Smooth Brome	n
Perennial Ryegrass	n
Big Bluegrass	y
Clovers	n
Alfalfa	n
Sickle-keeled lupine 5 oz./100# seed	y
And/or Lupinus bicolor 5 oz./100# seed	y
America vetch (Vicia Americana)	y

To	From	Seed Mixture/Per <b>USFS District approval</b>	*Native	Reason for seeding																
39/3	44/5+331	<p><b>Suggested Seed mix for Erosion Control USFS LANDS</b></p> <table border="0"> <thead> <tr> <th style="text-align: left;">Name</th> <th style="text-align: right;">% by wt.</th> </tr> </thead> <tbody> <tr> <td>California Brome (Bromus carinatus)</td> <td style="text-align: right;">30%</td> </tr> <tr> <td>Sheep fescue (Festuca ovina)</td> <td style="text-align: right;">40%</td> </tr> <tr> <td>Blue wildrye (Elymus glaucus)</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>Canada bluegrass (Poa compressa)</td> <td style="text-align: right;">10%</td> </tr> <tr> <td>Sickle-keeled lupine</td> <td style="text-align: right;">5 oz./100# seed</td> </tr> <tr> <td>And/or Lupinus bicolor</td> <td style="text-align: right;">5 oz./100# seed</td> </tr> <tr> <td>America vetch (Vicia Americana)</td> <td style="text-align: right;">5 oz./100# seed</td> </tr> </tbody> </table>	Name	% by wt.	California Brome (Bromus carinatus)	30%	Sheep fescue (Festuca ovina)	40%	Blue wildrye (Elymus glaucus)	20%	Canada bluegrass (Poa compressa)	10%	Sickle-keeled lupine	5 oz./100# seed	And/or Lupinus bicolor	5 oz./100# seed	America vetch (Vicia Americana)	5 oz./100# seed	Yes	Re-seeding and Fertilization after noxious weed treatments has been shown to be effective in preventing the re-establishment of noxious weeds and which reduces the need for future herbicide applications
Name	% by wt.																			
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America vetch (Vicia Americana)	5 oz./100# seed																			

**5.3 If not using native seed/plants, describe why.**

Native will be considered in all mixes. Introduced species are more competitive against invading tall tree species

**5.4 Describe timing and any follow-up that will need to take place to ensure germination/success of seeding/planting.**

Seeding should be completed when there is enough moisture to allow for 2 months of growth. Seeding can be completed any time of the year except for the hot summer months.

**6. DETERMINE MONITORING NEEDS**

See handbook — Monitoring for requirements.

**6.1 Describe the follow-up/monitoring cycle that will be used to evaluate the effectiveness of the vegetation control methods used.**

Site will be inspected during treatment. In addition routine patrols by BPA ground and aerial patrols

**6.2 Describe any follow-up or monitoring needed to determine if mitigation measures were effective.**

Routine patrols by BPA ground and aerial patrols

**7. PREPARE APPROPRIATE ENVIRONMENTAL DOCUMENTATION**

See handbook — Prepare Appropriate Environmental Documentation for requirements.

**7.1 Describe any potential project impacts or project work that are different than those disclosed in the Transmission System Vegetation Management Program EIS. Describe how those differences impact natural resources and if the differences are “substantial”.**

NO

**7.2 Is there a need for additional NEPA documentation (i.e. Forest Service requirement, Record of Decision, supplemental EIS)? If so, attach.**

Checklist will be forwarded to USFS for review. Call back for Fred  
Talked with Fred about project. As long as BPA follows checklist- OK with District.